

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2819	(measure\$5 or measuring) NEAR5 (time\$1 or period\$1) NEAR5 (battery or batteries)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 09:42
L2	412	1 AND ((measure\$5 or measuring) NEAR5 (time\$1 or period\$1) NEAR5 (battery or batteries) NEAR5 power\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 09:44
L3	136	((measure\$5 or measuring) NEAR5 (time\$1 or period\$1) NEAR5 (AC or adaptor\$1 or outlet\$1 or (alternating ADJ current)) NEAR5 power\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 09:44
<i>kur</i> L4	10	2 AND 3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 09:44
<i>kur</i> L5	31	1 AND ((measure\$5 or measuring) NEAR5 (time\$1 or period\$1) NEAR5 (battery or batteries) NEAR5 usage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 09:45
<i>kur</i> L6	32	((measure\$5 or measuring) NEAR5 (time\$1 or period\$1 or duration\$1) NEAR5 (battery or batteries) NEAR5 usage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 09:58
L7	2	("5623647").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:04
<i>kur</i> L8	219	(usage or battery or power) NEAR5 usage NEAR5 statistic\$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:06

## EAST Search History

L9	0	8 AND microbrowser\$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:05
<i>kwic</i> L10	71	8 AND (portable or handheld or hand-held or (hand ADJ held) or PDA or palm)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:05
<i>kwic</i> L11	32	(usage or consum\$3 or consumption) NEAR5 (energy or battery or power) NEAR5 usage NEAR5 statistic\$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:12
L12	532	microbrowser\$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:12
<i>kwic</i> L13	202	12 AND (usage or consumption)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/04/11 10:12

# Palm, Inc.

From Wikipedia, the free encyclopedia

**Palm, Inc.** is a personal digital assistant manufacturer responsible for popular products such as the Zire, Tungsten PDAs, Treo smartphones and the LifeDrive. Previous product lines include the Palm Pilot, Palm III, Palm V and Palm VII. While most of their devices run Palm OS, a recent edition of the Treo runs Windows Mobile.

Palm Computing, Inc. was founded in 1992 by Jeff Hawkins, Donna Dubinsky, and Ed Colligan, later co-inventors of the Palm Pilot. The company was started to create a PDA for consumers, called the Zoomer. The devices were manufactured by Casio and marketed by

Tandy, while Palm provided the PIM software. The Zoomer failed commercially, but Palm managed to survive through selling synchronization software for HP devices, and the Graffiti handwriting recognition software for the Apple Newton MessagePad. The company was acquired by U.S. Robotics Corp. in 1995. In June 1997, Palm became a subsidiary of 3Com when U.S. Robotics was acquired by 3Com. In June 1998 the founders became unhappy at the direction in which 3Com was taking the company, they left and founded Handspring. 3Com made the Palm subsidiary an independent, publicly traded company on March 2, 2000, and it was traded on the NASDAQ under the ticker symbol PALM.

In August 2003, the hardware division of the company merged with Handspring, was renamed to palmOne, Inc. and traded under the ticker symbol PLMO. The software division became PalmSource, Inc.; the Palm trademark was held by a jointly-owned holding company. In April 2005 palmOne purchased PalmSource's share in the 'Palm' trademark for US\$30 million [1] ([http://www.palm.com/us/company/pr/news\\_feed\\_story.epl?reqid=712951](http://www.palm.com/us/company/pr/news_feed_story.epl?reqid=712951)). In July 2005, palmOne launched its new name and brand reverting to Palm, Inc. and trading under the ticker symbol PALM once again.

On January 4, 2006 Palm released the Palm Treo 700w, the first Windows Mobile-powered Treo in a partnership with Verizon and Microsoft.

Current Palm OS products come with many free programs such as a suite called Documents to Go which allows the user to view PowerPoint files and modify Word and Excel files. A premium version of this software can be purchased which allows the user increased functionality. Palm's Windows Mobile product (The Treo 700w) comes with Excel, PowerPoint, and Word Mobile editions which are part of Microsoft's Windows Mobile 5.0 edition.

## Contents

- 1 List of PDA models
  - 1.1 Current models
  - 1.2 Discontinued models
- 2 See also
- 3 External links

## List of PDA models

### Current models

- Z22



Palm, Inc. logo, 2003



Palm, Inc. logo, 2005

- Tungsten E2
- TX
- Treo 650
- LifeDrive
- Treo 700w



Hardware division of Palm, Inc. Formerly palmOne, Inc. (palmOne, Inc. logo, 2004)

## Discontinued models

The following PDAs are no longer in production.

Discontinued Model	Replacement model
Pilot 1000	Zire 31
Pilot 5000	Zire 31
PalmPilot Personal	Zire 31
PalmPilot Professional	Zire 31
Palm III	Zire 31
Palm IIIe	Zire 31
Palm IIIx	Zire 31
Palm IIIxe	Zire 31
Palm IIIc	Zire 31
Handspring Visor	Zire 31
Palm V	Tungsten E2
Palm Vx	Tungsten E2
Palm VII	Treo 650
Palm VIIx	Treo 650
Palm m100	Zire 31
Palm m105	Zire 31
Palm m125	Zire 31
Palm m130	Zire 31
Palm m500	Tungsten E2
Palm m505	Tungsten E2
Palm m515	Tungsten E2
Palm i705	Treo 650
Tungsten E	Tungsten E2
Tungsten T	Tungsten TX
Tungsten T2	Tungsten TX
Tungsten T3	Tungsten TX
Tungsten T5	Palm TX
Tungsten W	Tungsten C
Zire	Z22
Zire 21	Z22
Zire 71	Zire 72
Handspring Treo 90	Treo 650
Handspring Treo 180	Treo 650
Handspring Treo 180g	Treo 650

Handspring Treo 270	Treo 650
Handspring Treo 300	Treo 650
Treo 600	Treo 650

## See also

- PalmSource, Inc.
- Palm OS
- Handspring
- Graffiti (Palm OS)
- List of Palm OS Devices
- Personal digital assistant

## External links

- Palm's website (<http://www.palm.com/>)

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Category: Electronics companies of the United States

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# NetFront

From Wikipedia, the free encyclopedia

**NetFront** is a microbrowser for embedded devices. Mainly deployed on mobile phones, NetFront is available for multiple platforms and has been deployed in Digital TVs, set-top boxes (STBs), PDAs, Web phones, game consoles, e-mail terminals, automobile telematics systems and other device types.

NetFront supports a variety of compact architectures while offering low power consumption, easy customization and a broad range of plug-ins.

Developed by Access Co. Ltd. of Japan, NetFront was designed to function as an embedded browser. Born from the necessity to render HTML on low-power handsets, NetFront evolved from the embedded device up, rather than being shrunk from the desktop down.

## Compact Netfront

Compact NetFront Plus is a Netfront version designed for the next-generation of mobile wireless services, including international i-mode phones.

Compact NetFront Plus supports Compact HTML, which is popular in Japan; WML (Wireless Markup Language), a markup language based on XML which specifies the content and user interface for WAP-enabled devices used by overseas services; and XHTML Basic, a subset of XHTML, which is expected to become the new global standard.

The software is also provided with the middleware and operating systems essential to a wireless Internet environment, such as a TCP/IP protocol stack, AVE-TCP, which supports IPv6 and the WAP Wireless Profile, a JV-Lite 2 Wireless Edition Java environment for cellular phones, and a AVE-SSL secure communications protocol and encryption module.

## Supported Operating Systems

- **Symbian OS:** Series 60, Series 80, and UIQ
- **Palm OS**
- **BREW**
- **REX OS**
- **Linux:** (Monta Vista Linux, MontaVista Graphics, QtEmbedded, Qtopia, GTK+, Red Hat, and others)
- **Windows Mobile** family: *Pocket PC*, *CE.NET*, *Smartphone*
- **OSE**
- **QNX**
- **VxWorks**
- **ITRON**
- **Others:** OS-9, pSOS, Nucleus RTOS, etc.

## External links

- The NetFront Website (<http://www.access-netfront.com/>)
- An article on NetFront ([http://www.osnews.com/story.php?news\\_id=8322](http://www.osnews.com/story.php?news_id=8322))

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Categories: Software stubs | Web browsers

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# Microbrowser

From Wikipedia, the free encyclopedia

A **microbrowser** (sometimes **minibrowser** or **mobile browser**) is a web browser designed for use on a handheld device such as a PDA or mobile phone. Microbrowsers are optimised so as to display internet content most effectively for small screens on portable devices and have small file sizes to accommodate the low memory capacity and low-bandwidth of wireless handheld devices. Essentially, they are stripped-down web browsers.

## Contents

- 1 Underlying technology
- 2 Pioneers
- 3 Small-screen rendering limitations
- 4 Popular microbrowsers
  - 4.1 Default browsers used by major mobile phone and PDA vendors
  - 4.2 User-installable microbrowsers
- 5 See also
- 6 External links

## Underlying technology

The microbrowser usually sets up the cellular networks themselves and gets content written in XHTML Mobile Profile (WAP 2.0), or WML (WAP 1.3 which was based on HDML). WML and HDML are stripped-down formats suitable for transmission across limited bandwidth, and wireless data connection called WAP. In Japan, DoCoMo defined the i-mode service based on i-mode HTML, which is an extension of Compact HTML (C-HTML), a simple subset of HTML.

WAP 2.0 specifies XHTML Mobile Profile plus WAP CSS, subsets of the W3C's standard XHTML and CSS with minor mobile extensions.

Newer microbrowsers are full-featured Web browsers capable of HTML, WML, i-mode HTML, cHTML, plus CSS, ECMAScript, and plug-ins such as Macromedia Flash.

## Pioneers

The so-called microbrowser technologies such as WAP, NTTDocomo's i-mode platform and Openwave's HDML platform have fuelled the first wave of interest in wireless data services.

A British company, STNC Ltd., developed a microbrowser (HitchHiker) intended to present the entire device UI in 1997. The demonstration platform for this microbrowser (Webwalker) had 1 MIPS total processing power. This was a single core platform, running the GSM stack on the same processor as the application stack. In 1999 STNC (<http://web.archive.org/web/19990427162007/http://www.stnc.com/>) was acquired by Microsoft and HitchHiker became Microsoft Mobile Explorer (<http://www.microsoft.com/presspass/press/1999/Dec99/MobileExplorerPR.mspx>) 2.0, not related to the primitive Microsoft Mobile Explorer 1.0. HitchHiker is believed to be the first microbrowser with a unified rendering model, handling HTML and WAP along with EcmaScript, WMLScript, POP3 and IMAP mail in a single client. Although it was not used, it was possible to combine HTML and WAP in the same pages although this would render the pages invalid for any other device. In addition, Amstrad's ill-fated e-m@iler (<http://www.amstrad.com/emailer.html>) and e-m@iler+ products used HitchHiker as their operating systems. Mobile Explorer 2.0 was available on the Benefon Q, Sony CMD-Z5, CMD-J5, CMD-MZ5, CMD-Z7, CMD-J7 and CMD-J70.

A freeware (although later shareware) browser for the PalmOS was Palmscape, written in 1998 by Kazuho Oku in Japan, who went on to found Ilinx. Still in limited use as late as 2003.



Released in 2001, Mobile Explorer 3.0 (<http://www.microsoft.com/presspass/press/2001/feb01/02-19mmepr.msp>) added iMode compatibility (cHTML) plus numerous proprietary schemes. By imaginatively combining these proprietary schemes with WAP protocols, MME3.0 implemented OTA database synchronisation, push email, push information clients (not unlike a 'Today Screen') and PIM functionality. The cancelled Sony Ericsson CMD-Z700 was to feature heavy integration with MME3.0. Mobile Explorer development had ceased by mid-2002.

Opera Software pioneered with its Small Screen Rendering technology. Opera Browser is able to relayout regular web pages for optimal fit on small screens and medium-sized (PDA) screens. It was also first widely available mobile browser to support AJAX.

## Small-screen rendering limitations

As mentioned, not only do microbrowsers need to be small in file size, the display screen is also much smaller. Extreme care and meticulous detail must be considered in displaying HTML information onto such a small screen. Bandwidth is also extremely limited and so is the stability. Connections get cut off as with ordinary cell phones and PDAs that are wirelessly connected.

## Popular microbrowsers

The following are some of the more popular microbrowsers. Some microbrowsers are really miniaturized Web browsers, so some microbrowser companies also provide browsers for the PC.

### Default browsers used by major mobile phone and PDA vendors

- NetFront by ACCESS Co., Ltd.
- Nokia Series 40 Browser by Nokia.
- Nokia S60 Browser by Nokia.
- Web Browser for S60 by Nokia.
- Obigo by Obigo AB (Sweden), 100% owned by Teleca AB
- Openwave (Redwood, CA) (formerly Phone.com, formerly Unwired Planet).
- Opera Mobile by Opera Software ASA (Norway). - Capable of reading HTML and reformat for small screens
- Pocket Internet Explorer by Microsoft Inc.
- Wapaka Browser Java micro-browser by Digital Airways.
- Picsel Browser by Picsel Technologies (Scotland).
- Blazer by Palm.
- PlayStation Portable web browser by Sony
- jBrowser by Jataayu Software[1] (<http://www.jataayusoft.com/>)
- Embider by Infraware[2] (<http://www.infraware.co.kr/eng>)

### User-installable microbrowsers

- Opera (browser) by Opera Software - supports all modern web standards supported by desktop browsers, including XHTML, CSS2 and AJAX. Has advanced Small Screen Rendering that adapts regular pages to small screen.
- Opera Mini by Opera Software - supports most features of stand-alone Opera, but can run on less capable phones by offloading memory-intensive rendering to proxy server.
- WinWAP by Winwap Technologies ([winwap.com](http://winwap.com))
- Bluelark Bluelark bought by Handspring Inc.
- Doris by Anygraaf Oy (Vantaa, Finland)
- JOCA by InterACT!V, another proxy-rendering free software Official product page (<http://www.joca.tv/>)
- NicheView by Interniche Technologies Inc.
- Minimo by Mozilla Foundation.
- MobileLeap
- Palm™ Web Browser Pro by PalmOne, Inc. (Milpitas, CA)
- Pixa by Sun Microsystems (Pixa acquired by Sun July 2003)
- RocketBrowser Rocket Mobile, Inc. (Silicon Valley, CA).
- PocketWeb by tlogic.de (Heidelberg, Germany) Official product page (<http://tlogic.de/pocketweb>)

- SAS
- Skweezer by Greenlight Wireless Corporation
- Thunderhawk by Bitstream Inc. (Cambridge, MA)
- Wapaka
- WebViewer by Reqwireless [3] (<http://reqwireless.com/>)
- Novarra
- Wapaka by Digital Airways

## See also

- Web browser
- i-mode
- Information appliance
- User agent

## External links

- Compact HTML for Small Information Appliances — W3C NOTE 09-Feb-1998 (<http://www.w3.org/TR/1998/NOTE-compactHTML-19980209/>)
- Mobile browsers and real Web pages (<http://www.howtocreate.co.uk/operaStuff/devices/>) — Comparison of many mobile browsers, with screenshots.

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